

CLAIMS

1. An elevator control apparatus comprising:

a processing portion for performing a processing relating to control of an elevator; and

a power supply voltage monitoring circuit for monitoring a power supply voltage supplied to the processing portion, elevator control apparatus being characterized in that:

the elevator control apparatus further comprises a voltage monitoring soundness checking function circuit which is adapted to output a monitoring input voltage forcible change signal for forcibly changing a power supply voltage input to the power supply voltage monitoring circuit in response to a control signal from the processing portion and to which a voltage abnormality detection signal from the power supply voltage monitoring circuit is input;

the voltage monitoring soundness checking function circuit holds at least some of contents of signals exchanged between the processing portion and the power supply voltage monitoring circuit, and

the processing portion checks soundness of the power supply voltage monitoring circuit by reading data held by the voltage monitoring soundness checking function circuit.

2. An elevator control apparatus according to Claim 1,

characterized in that the processing portion includes a first CPU and a second CPU, and

the first CPU and the second CPU can mutually check their soundness checking operations via a two-port RAM.

3. An elevator control apparatus according to Claim 1, characterized by further comprising:

a monitoring input voltage forcible change circuit for forcibly lowering a power supply voltage input to the power supply voltage monitoring circuit through an input of the monitoring input voltage forcible change signal.

4. An elevator control apparatus according to Claim 1, characterized in that the processing portion outputs a command signal for shifting the elevator to a safe state to a safety system equipment when a malfunction in the power supply voltage monitoring circuit is detected.

5. An elevator control apparatus according to Claim 1, characterized in that the power supply voltage monitoring circuit includes a plurality of power supply voltage monitoring circuits for monitoring voltages of a plurality of power sources that are different in voltage from one another, and

the control signal transmitted from the processing portion

to the voltage monitoring soundness checking function circuit includes a selection signal for choosing which one of the plurality of power supply voltage monitoring circuits is checked in soundness.

6. An elevator control apparatus according to Claim 5, characterized in that the processing portion can sequentially check soundness of the respective power supply voltage monitoring circuits one by one.

7. An elevator control apparatus according to Claim 1, characterized in that the voltage monitoring soundness checking function circuit is constituted by a programmable gate IC.